





Assessing Scaffolding Tools Adopted in Emergency Remote Teaching for English Public Speaking

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Abstract. Since the outbreak of COVID-19, emergency remote teaching, blended teaching, and other modes of technology-mediated teaching have been practiced in order to sustain education under stringent social distancing requirements. This study examines the teaching and learning process and the outcome of the “English Public Speaking” course guided by the scaffolding theory, under the emergency remote circumstances in Shanghai during the spring semester of 2022. The participants consisted of 53 non-English major undergraduate students who took the course at a key university in P.R. China. During emergency remote teaching, the course was designed with task-based, cooperative, and inquiry-based activities to be conducted around the zone of proximal development (ZPD) of students’ English public speaking skills through “teacher-learner dialogue” (e.g. heuristic explanation, topic selection feedback, teacher exemplary evaluation) and “learner-learner dialogue” (e.g. group discussion, peer assessment), using scaffolding instruction or assistance from the teacher, peers, and success criteria and thus offer diverse learning assessments. The study adopts a mixed-methods research approach to collect data from multiple sources such as pre-test and post-test scores, students’ course feedback questionnaires, post-speech self-assessment assignments, and six students’ in-depth interview data. The results show that scaffolding can improve students’ public speaking skills, boost their self-efficacy, and foster a friendly socio-affective community with the instructor and peers. Additionally, the alignment of various scaffolds in the English public speaking education domain can construct an integral nexus in teaching and learning, which enhances the vibrancy of the online classroom. Pedagogical implications for classroom teaching are also discussed in the study.

Keywords: Scaffolding, Emergency Remote Teaching, Assessment, English Public Speaking.

1 Introduction

Since the outbreak of the COVID-19 pandemic, many educational institutions in China had to move from face-to-face to online learning (e-learning) from time to time to conform to the local regulations, integrating with the new trends in information,

media, and technology. Notably, the 2022 spring semester witnessed the rise of emergency remote teaching and learning in Shanghai, China for three months on end.

The concept of “emergency remote teaching” (ERT) was described as a temporary instructional responsive teaching to the crisis, differing from pre-planned online learning [1]. ERT is referred to as unexpected short-term instructional delivery to an online delivery model because of a mammoth catastrophe, contrary to the online academic programs originally planned and designated to be delivered virtually [2]. Further, Blessinger and Bliss contend that remote teaching means to be “flexible, free, and welcoming, non-prejudiced, non-restricted and unfettered” [3].

Open education, as an alternative to the real-place transmission of instructional content, allows individuals to access and participate in education regardless of their physical/geographic location, provided they have the means (computer, smartphone, the Internet) to connect to the resources [3, 4].

Whether ERT is conceptualized as open learning, online learning, or distance education, based on respective individual or institutional perceptions, this phenomenon enhances unlimited and unrestricted access to all students to meet their needs for higher education.

The word “remote” is derived from the Latin word *remove*, meaning “move away or move back” or simply “removed”. In its basic form, “remote” therefore implies far-flung, isolated, and distant from the actual source [5]. ERT, therefore, entails delivering curricular contents, instructional material, or educational resources to the target learning audience physically away from the center or institution of learning. Emergency remote teaching during COVID-19 became exceptionally inevitable in areas with the most difficult terrain where physical access to educational centers and resources is hampered.

Furthermore, ERT is a feasible alternative amongst learners unconventionally dispersed, either locally or abroad, with only limited access to educational facilities and instructional materials for their learning needs. Emergency remote teaching is the transmission of curricular content, promoting interactive scholarship at the most efficient and realizable rate. Globally, the emergency posed by COVID-19 has popularized ERT as a temporary intervention to complete an academic year for students.

The support of modern education technology has prompted and enabled teachers to encourage students as the agency of learning to fully activate their initiative, enthusiasm, and creativity through task-based, cooperative, and inquiry-based learning modes, which is a useful attempt to provide a path for English teaching reform at the tertiary level. However, it has been widely reported that even teachers with considerable experience in ERT faced critical challenges. These stem from the need to balance domestic responsibilities, acquire and/or upgrade missing competencies, create a learning environment, teach, generate new course content, ensure and maintain quality contact with students, and take into account the specific needs of students. ERT is facing with multiple difficulties in real life [6].

Besides, extant research on the role of scaffolding in the context of emergency remote teaching is still scarce. The scaffolding construct of how students better acquire new knowledge when applying technology in learning in ERT provides a

foundation for future teacher education programs and training even when the pandemic is over. Thus, it is necessary to apply scaffolding tools into ERT. The present study strives to probe into this new area based mainly on students' self-reports and behavioral observation through both qualitative and quantitative analyses, revealing how the application of scaffolding affects the process and effect of students' learning under emergency remote circumstances.

2 Conceptualizing Scaffolding as a Key Construct

When scholars are struggling with understanding a phenomenon, they often turn to constructs for help. In recent years, the field of language education has witnessed increasing uses of the construct of scaffolding in discussions of instructional innovations. Borrowed from the field of construction, where a scaffold is a temporary structure erected to assist with the building or modification of another structure, the use of scaffolding as a construct within the domain of learning refers to the temporary support provided for the completion of a task that learners otherwise could not complete [7].

Although the scaffolding construct was primarily used for pragmatic and atheoretical purposes at the beginning, it became increasingly associated with Vygotsky's developmental theory in subsequent discussions [8]. The implicit link between Vygotsky's **zone of proximal development (ZPD)** and the scaffolding construct was first made explicit by Cazden [9]. Cazden argues that adults scaffold children's learning in a broad array of situations, and Vygotsky's notion of the adult-child interactions in the ZPD would provide an analytic link in understanding these dynamics. In her seminal paper, Cazden also extended the construct from its original use in the context of parent-child interactions to an analysis of teacher-student interactions.

Stone further described a Vygotskian-inspired analysis of scaffolding [10]. According to Vygotsky, learning first takes place on a social (intermental) level before it takes place on an individual (intramental) level. In Stone's view, the student is not a passive participant, but scaffolding is seen as a fluid interpersonal process in which both ends of the communication are active participants. Both parties actively build common understandings through communicative exchanges in which the student learns from the more knowledgeable other.

In the last decade, the description of scaffolding has evolved to include support provided via tools, curricula, and technologies [11], in addition to teachers [12, 13] and knowledgeable peers [14]. Meanwhile, concerns relating to the seemingly exclusive focus of scaffolding on adults as the agents for instilling new skills and understandings have been reduced. The current scholarship abandons a view of the adult as the molder of a passive child. Instead, we have an image of scaffolding as a complex social process of knowledge co-construction. Thus, there have been many interesting advances in the ways that learners could be supported in educational settings.

The idea of “distributed scaffolding”, in which various types of tools, routines, and activities are used to support a range of students, is now being increasingly applied [15]. The learner’s environment now consists of both material and social scaffolds that distribute the role played by a single adult or tutor in the original notion of scaffolding. Therefore, we need to understand the interplay between the tools and social scaffolds, based on their respective functions. A framework of the ecology of resources put forth by Luckin describes how learners interact with different resources [16]. There exists alignment between the tools and social scaffolds, which could better enhance pedagogical effects of language classrooms.

In the information age, scaffolds seem to transcend the temporal and spatial boundaries of the classroom [17]. Material characteristics of the environment including tools like mobile technologies, and the social affordances they embody, can provide opportunities for innovation on how learning can be scaffolded. For instance, students’ using hand-held devices for collaboration and communication is envisaged as creating a “sociomaterial space of communication and collaboration” [18].

However, extant research still leaves some research lacunas to fill in. Firstly, a challenge lies in documenting the efficacy of specific scaffolding strategies under particular circumstances, especially in the domestic context. Several questions still remain unanswered in the Chinese literature. For example, which strategies appear to work with which students in which grades and for which skills? Moreover, given the limited body of effectiveness research on mainly (quasi-)experimental tutoring situations with mostly simple tasks, future research might focus on more naturalistic situations with all sorts of tasks and larger sample sizes, recording them audio-visually for further analysis. Readers are curious about what needs to be supported, when support is needed, and whether the support is best provided by a tool, peer or teacher, or a combination of these.

Secondly, how orchestration systems support the distribution of support across tools, peers, and teacher-led discussions is a rich area for research in the educational context. We need more empirical studies to understand the interplay between material and social scaffolds [19], how the support would change over time, and how their alignment is operationalized in specific contexts.

In a nutshell, scaffolding is a crucial and frequently studied concept. Extant foreign and domestic studies on scaffolding in the language education context have accumulated rich research results, which have not only provided positive guidance for language classrooms but also catered to the development of the time and new technologies. However, studying scaffolding in a rigorous way appears to be especially complex probably because of the complexity of a dynamic concept such as scaffolding, and much remains unclear with regard to the use and effectiveness of scaffolding in language education. In addition, effectiveness research is relatively scarce, since it is a complicated and time-consuming endeavor to perform. The present study hopes to stimulate and advance future research on scaffolding, especially in an ERT situation.

3 Research Design

3.1 Course Description

This study examined the teaching outcome of the teaching reform in the course of “English Public Speaking”, which is guided by the scaffolding theory, under the emergency remote circumstances in Shanghai, China in the spring of 2022. In the process of reform, the course was designed with task-based, cooperative, and inquiry-based activities which center on learning, and students’ ZPD of English public speaking skills are developed through “teacher-learner dialogue” (e.g. heuristic explanation, topic selection feedback, teacher exemplary evaluation) and “learner-learner dialogue” (e.g. group discussion, peer assessment), using scaffolding instruction from the teacher, peers, and success criteria and thus offer diverse learning assessments.

Due to the pandemic, 13 weeks of classes were conducted online during the semester through the Tencent Meeting, with three additional independent learning weeks scheduled for students’ self-instructional learning. The online autonomous learning part of the course was a personalized learning phase, in which students can watch pre-recorded videos and exemplary speeches, read textbooks, complete online quizzes, and prepare speech tasks to understand and internalize the knowledge about English public speaking and complete elementary learning objectives such as memorization and comprehension. For the classroom learning part, students deepen their understanding of specific knowledge and put it into practice through classroom discussion, group assessment, class presentation, and peer evaluation, etc., and modify their speeches according to others’ suggestions to further hone their public speeches.

Under the emergent remote circumstances, various virtual platforms were employed in classroom teaching and learning, e.g. the Chaoxing platform, the eLearning platform, Tencent Meetings (see Figure 1, 2, 3) to help students equipped with more resources that could scaffold their learning. Self-assessment and peer assessment were used in the course so that more interaction would be possible. But these two assessments were only for the diagnostic purpose. Students were not required to mark their own performances according to the rubrics. Instead, a thorough examination of their own performances using only qualitative descriptions were appreciated. Students were also invited to find out places for improvement both for themselves and for their peers.

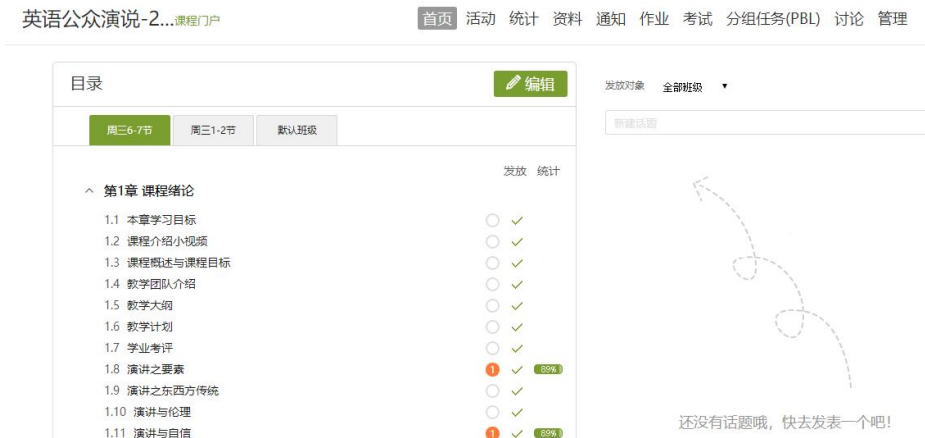


Fig. 1. A screenshot of the Chaoxing platform.



Fig. 2. A screenshot of the eLearning platform.

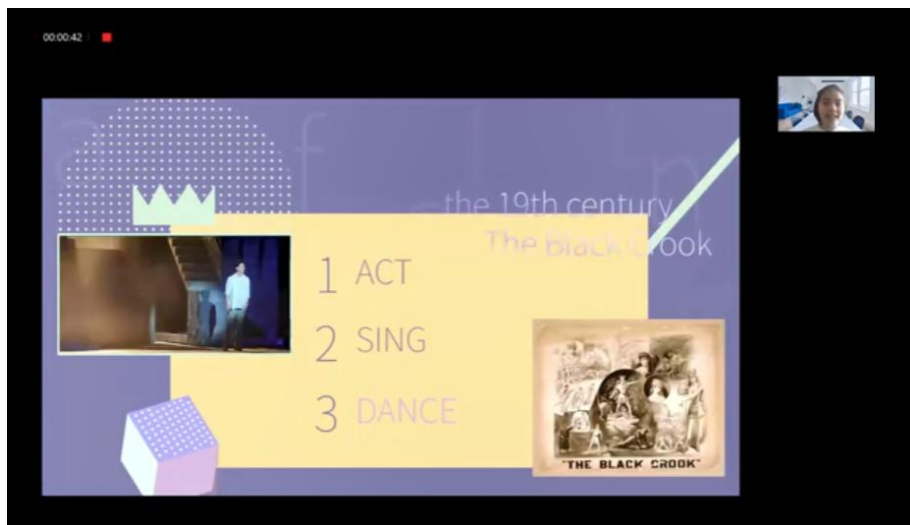


Fig. 3. A screenshot of the Tencent Meeting.

3.2 Research Questions

In order to investigate whether and how scaffolding promotes learning in the emergency

remote teaching setting, the study aims to examine the impact of scaffolding on the outcome of students' English public speaking abilities in the online emergent teaching context during the epidemic lockdown and strives to probe into the following questions: (1) After a semester of emergency remote teaching, does scaffolding help improve students' English public speaking abilities?

(2) How does scaffolding affect students' outcomes of learning English public speaking?

(3) How does scaffolding affect students' process of learning English public speaking?

3.3 Participants

The participants consisted of 53 non-English major undergraduate students who took "English Public Speaking" at a key university in Shanghai from February to June 2022, including 19 male students and 34 female students. All the students volunteered to participate in the study and signed the consent form. Based on the course requirements, students of this course have to be at least at Level 6 of China Standards of English (CSE) before they enter the course – a relatively high level of English proficiency compared to most other English courses offered by the College English department.

3.4 Instruments

The present study collected five parts of data, viz. assessors' ratings, students' questionnaire feedback on the course, classroom observations, students' reflective journals and self-assessments, and in-depth one-on-one interviews with students. The respective data resource, data frequency, and data generated are listed in Table 1.

Table 1. Data information.

Data resource	Data frequency	Data generated
Two trained assessors' ratings of the 53 participants according to the pre-agreed analytic rubrics	Collected three times online, after each speech task	Pre-test and post-test scores of 53 participants
Students' questionnaire feedback on the course	Collected at the end of the semester online	53 participants' submission of the online questionnaire
Classroom observations	Collected each week	Video recordings of each class
Students' reflective journals and self-assessments	Collected three times online, each after one speech task	53 participants' submission of their self-assessment assignments after each speech task
Six in-depth one-on-one interviews with students	Collected at the end of the semester online	Audio recordings of 6 students who are chosen based on their performances and assessments

Quantitative data in the form of pre-test and post-test average scores of 53 students' multidimensional speaking skills by two trained raters were collected. Based on the rubrics adapted from Lucas' teacher's manual [20], the teaching and learning outcome of English public speaking skills over the course of a semester was carefully examined from various dimensions. After training and discussions, the inter-rater reliability assessed by Pearson correlation reached 0.85, indicating good interrater reliability. The scores of two raters in the same dimension were averaged.

Students' questionnaire feedback focused on students' self-assessed data such as the dimensions they believed they progressed most, the teaching mode they liked, and their suggestions to improve the course setting.

Classroom observations were conducted each week, mostly online. The types of scaffolds provided by the teacher as well as the participants' reception could be better captured via this channel.

And participants were asked to write self-assessment assignments after each speech delivery to reflect upon the relevant teaching and learning process and their own speaking practices, including topics of how they make use of various help and how

they evaluate their performances from various perspectives. The text could be either in English or in Chinese.

The in-depth one-on-one interviews of six participants each lasted for 45-60 minutes. Interview topics were designed based on the effectiveness of scaffolds in the classroom, for instance, “Were the following sessions helpful to you? Which sessions helped you the most with your speech?”, “What role do you think each played primarily? How did you learn in the course?”, and “What kind of help did you find most useful in preparing for your speech?”.

3.5 Data Collection Procedures

The present study used a mixed-methods research approach. The study supplemented the quantitative score results by two raters with students’ self-assessed data, including 53 students’ course feedback questionnaires submitted at the end of the semester, post-speech self-assessment assignments, and six students’ in-depth interview data, as well as classroom observations. The participants were required to complete three speech tasks and after-speech assessments during the course: 1) self-introductory speech; 2) informative speech; and 3) persuasive speech. To preserve the authentic ecology of teaching and learning, the study does not arrange additional tests or speech tasks for the students to do.

3.6 Data Analysis

The present study employs mixed-methods. Mixed-methods research (MMR) is a research methodology that incorporates multiple methods to address research questions in an appropriate and principled manner [21, 22, 23], which involves collecting, analyzing, interpreting, and reporting both qualitative and quantitative data. A mixed-methods design can integrate and synergize multiple data sources which can assist to study complex problems [24].

The quantitative analysis of the present study is mainly based on a paired-sample t-test. Paired samples t-tests typically consist of a sample of matched pairs of similar units, or one group of units that has been tested twice. The present study uses a paired-sample t-test with the help of Stata SE15 to measure the performance of each participant in the pre-test and post-test to see whether significant changes happen during the process. The present study also involves simple calculations of ratios provided by the questionnaire.

The qualitative analysis of the study employs qualitative content analysis. According to [21], content analysis is the study of documents and communication artifacts, which might be texts of various formats, pictures, audio, or video. Social scientists use content analysis to examine patterns in communication in a replicable and systematic manner.

Qualitative content analysis (QCA) refers to a powerful analytical method used for the subjective interpretation of the contents in a systematic and context-dependent manner [25, 26]. In this regard, QCA puts much emphasis on systematicity in data coding, utilization of predefined steps in data utilization (e.g. sense-making through a coding frame, generating definitions of categories, segmenting data, etc.) [26]. QCA

focuses on meaning, especially latent meaning, which is best understood in a context-dependent manner.

4 Results

4.1 Scaffolding Promotes Students' Academic Performances

The paired-sample t-test based on the average scores on multiple dimensions provided by [19] assessed by two trained raters shows that the students have progressed significantly in fourteen out of eighteen dimensions, including “introduced the topic clearly” in the introduction part, “main points clear”, “language accurate”, “language clear, vivid”, “language appropriate”, and “connectives effectively” in the body part, “reinforced central idea” in the conclusion part, and “spoken fluently”, “maintained eye contact”, “used physical action effectively”, and “appealed to emotions properly” in the delivery part, and “topic challenging”, “speech constructed with creativity”, and “speech completed in a time limit” in the overall evaluation part. Moreover, the scores of another three dimensions, “gained attention and interest” in the introduction part, “prepared audience for ending” in the conclusion part, and “used voice effectively” in the delivery part, also follow an increasing trend. However, no significant difference is found in the sample. Thus, the participants may not undergo significant progress in these three dimensions.

Table 2. Results of paired-sample t-test.

Perspective	Rubrics	Pre-test (M)	Pre-test (SD)	Post-test (M)	Post-test (SD)	t	P
Introduction	Gained attention and interest	4.321	0.481	4.260	0.609	0.651	0.518
Introduction	Introduced topic clearly	4.198	0.583	4.519	0.546	-3.858	0.000
Body	Main points clear	4.160	0.595	4.575	0.484	-4.326	0.000
Body	Language accurate	3.830	0.438	4.047	0.419	-3.070	0.003
Body	Language clear, vivid	4.047	0.441	4.542	0.353	-8.301	0.000
Body	Language appropriate	4.180	0.428	4.340	0.447	-2.080	0.043
Body	Connectives effective	4.037	0.458	4.566	0.500	-6.889	0.000
Conclusion	Prepared audience for ending	4.104	0.646	4.047	0.798	0.496	0.622

Conclusion	Reinforced central idea	4.047	0.780	4.415	0.586	-2.996	0.004
Delivery	Spoken fluently	4.057	0.813	4.821	0.393	-6.568	0.000
Delivery	Maintained eye contact	4.000	0.791	4.594	0.613	-4.932	0.000
Delivery	Used voice effectively	4.085	0.677	4.491	0.592	-3.678	0.001
Delivery	Used physical action effectively	4.179	0.629	4.538	0.553	-4.353	0.000
Delivery	Appealed to emotions properly	4.123	0.664	4.547	0.614	-4.056	0.000
Overall	Topic challenging	3.991	0.697	4.840	0.570	-7.557	0.000
Overall	Speech adapted to audience	4.094	0.694	3.915	0.677	1.613	0.113
Overall	Speech constructed with creativity	3.858	0.834	4.542	0.475	-5.712	0.000
Overall	Speech completed in time limit	4.434	0.883	4.858	0.531	-3.114	0.003

Generally speaking, students' English speaking capabilities have improved significantly before and after the class, which shows that the course guided by the scaffolding theory is effective in promoting emergency remote teaching and learning in the context of the COVID-19 lockdown.

It can be seen that based on two trained raters' pre-test/post-test measurements of students' multi-dimensional English public speaking abilities, scaffolding promotes students' academic performances from various perspectives. In the context of the English Public Speaking course, students' English public speaking abilities have improved significantly in many facets.

4.2 Scaffolding Elevates Students' Self-efficacy

Besides cognitive development in students' academic performances, scaffolding can be beneficial to students' self-efficacy. Under the influence of multiple scaffolds, students can become more confident in themselves when delivering a speech.

According to the participants' self-reports, nearly all of them believed that their English public speaking abilities had improved with the aid of scaffolding tools through this course, especially their delivery abilities (see Figure 4). Participants' ratings of the helpfulness of the scaffolds reached an average of over 85 out of 100 for each dimension (e.g. establishing the topic, determining the structure, enriching the

content, improving the delivery, adapting to the audience). By referring to the exemplary videos on the online platform, students learned from other speakers' styles, and thus they felt that they made eye contact and gestures more appropriately. Through the classroom learning part taught by the instructor, students managed to gradually develop a sense of emotional appeal when giving a speech, not merely deeming public speaking as a unidirectional output of the individual speaker. With verbal encouragements and suggestions from the instructor and peers, students would maintain a positive attitude towards the speech tasks, revise according to the tailored comments, and continue to make efforts and make progress. In general, participants reported that they gained more confidence in delivering English public speeches.

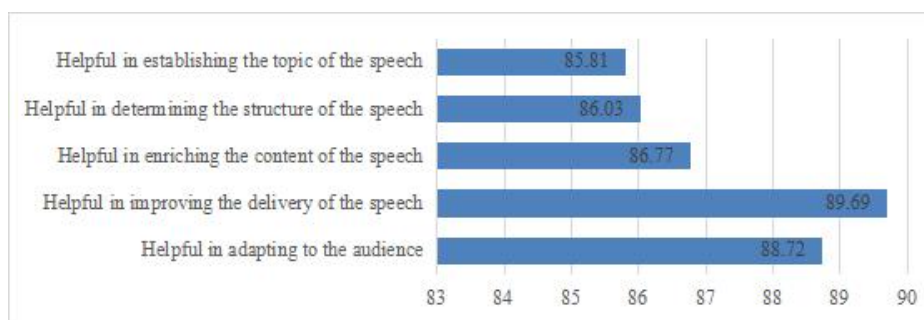


Fig. 4. Students' self-assessed feedback on their public speaking abilities (N=53).

Many participants of the interview sessions mentioned that one of the largest improvements they could feel in the English Public Speaking course was developing the ability to use eye contact, intonation, and gestures to enhance the effectiveness of their expressions. For instance, the following interviewee thought that he would particularly pay attention to the delivery part of his speech.

Excerpt 1:

“In terms of delivery, after taking this class, I think I might pay more attention to my own like body language or something like my own voice or the intonation.” (S9, Interview)

Another interviewee stated the same point, and at the same time, he also specified the similarities and differences between writing an essay and giving a speech. He believed that he understood the uniqueness of public speaking and performed it well.

Excerpt 2:

“If you say simply write an expository essay, or write an argumentative essay, we have had a lot of training in the previous secondary school level, while the meaning of public speaking is that you have to say this thing, so delivery is a fundamental difference between writing it down and saying it, right? Then how can you convey what you want to express to the audience? I think I learned a lot in this course, including how to exert eye

contact, how to use my voice intonation, how to use my gestures to enhance the effect of expression..... The progress in this area is the biggest progress I got in this course.” (S42, Interview)

The process of preparing a speech also includes the process of writing a speech script, which will exercise English writing skills, but the difference between speech and writing is that the speaker has to speak out what they write, so the presentation is a fundamental difference between writing down and speaking out, and this is one of the places where the students believed that they have progressed most.

Even an interviewee who had previous experience in English public speaking still considered delivery as the largest improvement part in this class:

Excerpt 3:

“I think the biggest achievement in this course will probably be the support on how to deliver my speech because my previous high school speech experiences were all my individual attempts. I’m not sure about what the rules and regulations are, and no one gave me feedback, so I did not realize that my delivery of speech could be better. But after I took this class, I became more conscious of my own pace of speech, the receptiveness of others, and so on. So, I think my delivery improved a lot in this course. Right.” (S40, Interview)

The interviewee also wrote in her reflective journal that she believed her pace improved much, thanks to the advice from her peers:

Excerpt 4:

“For this speech, something I noticed I improved on is the pace of my speech. It’s much more well-paced compared to my previous speeches and it is more comfortable to listen to as it doesn’t sound rushed.” (S40, Reflective journal and self-assessment for the third speech task)

Another participant highlighted that his presentation skills honed after he took the course, which also pointed to the improvement of his delivery abilities:

Excerpt 5:

“Through the three speech tasks this semester, I think my presentation skills and English proficiency have improved significantly, especially in terms of how to organize and present the content of my speeches. I gained a more professional and profound understanding, thanks to the company and dedication of my teacher and teaching assistant.” (S31, Reflective journal and self-assessment for the third speech task)

This might probably suggest that many students paid little attention to delivery before they took the course, and after the elaborately-designed public speaking course which centered on the use of scaffolding tools, they became gradually aware of the significance of delivery in English public speaking. The demonstration of delivery in exemplary videos and the suggestions from the instructor and peers in multiple

feedback sessions made students realize their own space for improvement, and thus they made great efforts to improve in this area. This can be the reason for participants' self-mentioning delivery as their largest progress by taking this course.

Overall, the use of scaffolding provides students with opportunities to find room for improvement, makes students more confident in making English public speeches, and promotes their self-efficacy.

4.3 Scaffolding Creates a Community of Friendliness

Although this course was mainly taught online, participants could still form good relationships with their instructor and peers through feedback discussion and peer review sessions from the affective perspective. Students also referred to the suggestions raised either by the instructor or by peers (e.g. insufficient refutation, false reasoning, additional gestures) for further revision, which helped the participants polish their speeches. In this sense, scaffolding creates a close community of friendliness even under emergent remote teaching circumstances by allowing more interactions.

According to the questionnaire, most of the participants hold a positive attitude towards assessing peers and being assessed. The average scores are 84.62 and 86.91, respectively. 56.60% and 66.04% of each cohort give a score higher than 80 for these two questions. One participant stated that the course offered more opportunities to interact with peers when everyone was isolated in their dormitory or at home. Scaffolds constructed by peers and the instructor can make students feel warmer, and thus alleviate students' loneliness by conversing vigorously with others over their topic selection, language use, delivery, etc. Moreover, the instructor's feedback could even be more acceptable, as several students suggested in their questionnaires and self-assessment assignments that they would like more feedback discussion sessions from the instructor.

The format of group discussion and peer review was generally welcomed by the students, especially under emergency remote teaching circumstances. Many participants in the interviews hold this view. The following excerpt is one case.

Excerpt 6:

"I think I like the format used in this semester more than the traditional one, as there are more opportunities for classroom participation. It is not merely the teacher that imparts her knowledge to the class, I feel that we interact with each other very frequently and become more concentrated in class. As communication with peers and giving each other advice, feedback, and competition may make the class more engaging, I think my learning efficiency is improved by this approach." (S52, Interview)

Another interviewee pointed out that the interactive mode of group discussion and peer review added more fun to the online classroom and could attract students to English public speaking compared with the traditional mode of lectures plus examinations, as is shown in the following excerpt.

Excerpt 7:

“I think the group discussion and peer assessment sessions can add more fun to the class and increase the interaction between teacher and students, which I like very much. Because I think the traditional way of doing quizzes and taking tests may only get to a student by his/her score, but I personally feel that it is hard to reflect our true understanding of the class and our real English-speaking level by just a single score. With the introduction of peer assessment, we can understand other students’ opinions and find some areas for improvement from other students’ evaluations of our speeches. Since our classmates are all in the same learning situation, we may have a slightly better understanding of each other, which is something I like. I think the method used in this semester is quite good.” (S20, Interview)

Some proactive students even took a step further to form a closer community of practice with a knowledgeable peer in order to make progress together after class. They two would share some useful videos, give tips on how to prepare for the speech, and revise each other’s script. S45 and S51 in the study extended their in-class scaffolds to the out-of-classroom settings by themselves and reaped more fruitful results in the final persuasive speech task as assessed by two raters. Besides making academic progress, the more intensive interaction between the two participants also led to some emotional exchanges and genuine friendships. As can be seen from Excerpt 8, S45 showed great respect to his peer and expressed his gratitude.

Excerpt 8:

“L (S51) would share some exemplary speeches she had watched recently, she is really an eager beaver, and she led me through this semester.” (S45, Interview)

Apart from the friendship between students, the instructor took much time after class to give more detailed and personalized feedback to students who needed more clarifications, and her one-on-one feedback was highly appreciated by many participants. For example, S45 said that the instructor was really “kind and nice” and he really appreciated her efforts to carefully design the course and support the students in an extremely hard time. S40 thought that the instructor tried her best to suit the course for the online mode and mitigate the learning burden for the students. She felt quite relaxed and happy to take the course and liked the instructor very much. Additionally, S42 would consult the instructor to gain more feedback on his speech from time to time, and he considered the instructor very patient and helpful in figuring out his problems, encouraging him, and providing some useful directions for revision. Many interviewees felt that they had built a good relationship with the instructor and they would highly recommend the course to other students.

In sum, the instructor and the participants built a community of friendliness by employing various kinds of scaffolding strategies to add more interactive sessions to the course under emergency remote circumstances, and this practice is conducive to

students' affective development and can bring more warmth to their learning.

4.4 Alignment of Different Scaffolds Contributes to an Integral Nexus in Teaching and Learning

The present study was conducted with a synthesis of different support such as the instructor's explanation and guidance, peers' suggestions and comments, the provision of evaluation criteria and sample speeches online, as well as help from the textbook and other materials. A college English Public Speaking classroom is a complex and dynamic system where multiple elements interact with and co-adapt to each other. The author [19] divided scaffolds into two major categories, material scaffolds, and social scaffolds. In an online English Public Speaking classroom under emergency remote teaching circumstances, various types of scaffolds might influence students' learning process and outcomes synergistically. The participants themselves had realized that the instructor had offered various kinds of support to facilitate their learning in this special setting, as shown in the following excerpt.

Excerpt 9:

"In general, these materials help me more in the early stage of preparing for a speech. For example, the knowledge points in the textbook and the evaluation criteria are very useful in topic selection and writing a script. Because these let me know what topic and content are better, and how to build some basic frameworks. The teacher and classmates' help in speech is more evident in the later stage of my preparation. When I prepared for the persuasive speech, the Professor guided me a lot on WeChat, and my classmates would also give me some constructive suggestions. To sum up, physical materials like teaching materials and evaluation criteria would help me form a general framework in the early stage, and then the verbal advice and guidance from teachers and peers would help me revise my drafts." (S52, Interview)

Another interviewee had a different understanding concerning the role of different scaffolds, as is shown in the following excerpt.

Excerpt 10:

"From the selection of the topic to the completion of the speech script, and then to the final presentation of this speech, the teacher's guidance, the support from the teaching materials, the classmates' verbal assistance, and the affordance from the evaluation criteria, all these play a very specific and important role in the speech preparation processes. Take my persuasive speech as an example, first of all, when I chose this topic, the Professor gave me a lot of help when I chose the topic. She pointed out that my original topic was not controversial enough, which was an undesirable choice to serve the general purpose of a persuasive speech. This kind of commentary was very directional and made me finally choose a relatively philosophical topic about God. Next, my classmates helped me a lot in writing my speech. During the group discussion, they

first gave me a lot of encouragement and affirmation, which made me feel more confident to complete the speech. Very importantly, they also pointed out what elements of the topic aroused their interest and made them eager to hear more about it. These comments helped me know what I should emphasize. Before I delivered my speech to the audience, I drew a lot on the evaluation criteria. You can see that in my submitted video, I paid attention to eye contact, the use of gestures, and intonation. Throughout this process, I personally had a clearer idea of what a good speech should look like, so all the support was very helpful to me.” (S42, Interview)

These two excerpts provided by two interviewees are relatively similar, each with a highly structured analysis of the role of different types of scaffolding in students’ learning English public speaking. These different types of scaffolds can have a synergistic effect on the development of students’ higher-order English public speaking capacities. Synthesizing students’ feedback, it can be found that the significance of the instructor and rubrics were highlighted in preparing students’ speeches in the early stage, while other scaffolds seem to be more useful for revising and polishing speeches in the late stage, and can lead to substantial improvements in speech quality. In other words, the utility of material scaffolds is more evident in the draft writing phase, while the utility of teachers and peers giving advice is more evident in the draft revision phase.

Apart from linking different scaffolds with different stages of preparing for a speech, another perspective mentioned by one interviewee is linking different scaffolds with the level of abstraction/concreteness of knowledge:

Excerpt 11:

“I think for material scaffolds such as textbooks and rubrics, their major contribution is to give us a theoretical and systematic outline, and to inform us of the steps of preparing for a speech, and then how to do each step. While, the role of verbal communication between the instructor and peers, first and foremost, is to explain the theoretical knowledge clearly in a more grounded way, and secondly, to help us reflect on our own problems in the actual situation. Thirdly, these social scaffolds allow us to have a reference between each other. For example, in the last speech, I would go to see some excellent speeches made by my classmates, and then correct my own after accumulating experience from theirs, and I think this is also a very valuable reference for my final speech. The professor also gave me much support in preparing for my last speech. The support of social scaffolds cannot be replaced.” (S45, Interview)

The last excerpt points out that the role of material scaffolds is mainly to provide a theoretical and systematic outline, so that students are clear about what steps to take in delivering a speech, how to take each step, and to offer sample speeches for students to learn from and refer to. The role of social scaffolds such as the instructor and peers is firstly to concretize and contextualize the systematic and theoretical knowledge, and secondly to help students reflect on their own problems, and then try

to solve them in the actual situations.

In sum, the insights collected from the one-on-one in-depth interviews show that the participants had realized that the alignment of different scaffolds happened in this English Public Speaking course and it contributes to an integral nexus in language teaching and learning that has a conducive effect on students. Each specific scaffold works to strengthen students' English public speaking skills.

5 Discussion

The present study finds that after a semester of emergency remote teaching and learning, scaffolding promotes the improvement of students' English public speaking abilities. Through pre-test and post-test comparisons, students' performances in many tested dimensions covering the introduction, body, conclusion, delivery, and overall evaluation parts have improved significantly. Furthermore, scaffolding also has a conducive influence on students' self-efficacy and affective development.

In terms of the learning outcome, building a variety of scaffolds in the context of blended learning can activate the potential of students while enhancing their learning effectiveness and efficiency. In addition, peer scaffolding in the form of peer assessment helps students introspect the problems in their speeches and polish their speeches from time to time, which plays a positive role in improving the quality of students' speeches and students' English public speaking delivery skills.

In terms of the learning process, English speech tasks can exercise and develop multidimensional abilities, and blended learning places high demands on students' autonomous learning abilities. In order to reduce students' cognitive load and foster their interest in learning, designing diverse scaffolds for the course (e.g. teacher scaffolds, peer scaffolds, success criteria scaffolds, etc.) is the goal that should be pursued. The present study supports the author's [19] conclusion that both physical tools and social scaffolds can be helpful for students. The study also finds that physical scaffolds and verbal scaffolds are in a synergistic relationship (alignment) with each other and work together to positively affect students' English public speaking abilities. As is summarized in the previous section (especially in Excerpt 9), the effect of physical scaffolds is more evident in the stage of preparing for a speech, while the effect of verbal scaffolding by the teacher and peers is more evident in the later stage of revision. Students tend to use physical scaffolds to brainstorm and social scaffolds to polish their speeches. Teaching practitioners could design the scaffolds in their classrooms accordingly to better suit learners' need.

Past ERT studies mainly focused on the technological and pedagogical challenges posed by the environment, pointing out that students' lack of motivation is the core problem to be solved. The present study adopts the scaffolding theory to provide guidance to teaching practitioners for better design and implementation of scaffolds in ERT classrooms.

From a pedagogical perspective, the present study also has some implications. Emergency remote teaching places high demands on students' capacity for independent learning, and scaffolding can assist students in gradually narrowing the gap between their current level and potential development level. Teachers can flexibly

use various scaffolds in teaching according to their own curriculum characteristics and integrate online and offline platform resources in the process of emergency remote teaching, which not only facilitates teachers to manage the curriculum, control students' learning progress, and conduct a visual analysis of learning data but also extends teaching beyond the classroom by designing a variety of scaffolds to expose students to more teaching resources outside the classroom. It can also extend teaching beyond the classroom by designing a variety of online scaffolds, exposing students to more teaching resources outside the classroom, and promoting the practice of "learning-centered" teaching concepts to get better results for students' cognitive, self-efficacy, and socio-affective development.

6 Conclusion

The pandemic has posed significant challenges to tertiary education. College students may exhibit disinterest in online lectures and assignments, resulting in decreased interaction with instructors and classmates. However, employing scaffolding tools can be instrumental in addressing these issues. Our research reveals that scaffolding can promote learners' public speaking capabilities, enhance learners' self-efficacy, and create a socio-affective community of friendliness between the instructor and students. Furthermore, the alignment of different scaffolds in the English public speaking domain can contribute to an integral nexus in teaching and learning, which makes the online classroom more dynamic.

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